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(54) **FAST-REGENERABLE SULFUR DIOXIDE  
ADSORBENTS FOR DIESEL ENGINE  
EMISSION CONTROL**

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See application file for complete search history.

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(57) **ABSTRACT**

Disclosed herein are sorbents and devices for controlling sulfur oxides emissions as well as systems including such sorbents and devices. Also disclosed are methods for making and using the disclosed sorbents, devices and systems. In one embodiment the disclosed sorbents can be conveniently regenerated, such as under normal exhaust stream from a combustion engine, particularly a diesel engine. Accordingly, also disclosed are combustion vehicles equipped with sulfur dioxide emission control devices.

**23 Claims, 14 Drawing Sheets**  
**(12 of 14 Drawing Sheet(s) Filed in Color)**

